

The World's New Numbers

“Here lies Europe, overwhelmed by Muslim immigrants and emptied of native-born Europeans.” That is the obituary some pundits have been writing in recent years. But neither the immigrants nor the Europeans are playing their assigned roles.

BY MARTIN WALKER

SOMETHING DRAMATIC HAS HAPPENED TO THE world's birthrates. Defying predictions of demographic decline, northern Europeans have started having more babies. Britain and France are now projecting steady population growth through the middle of the century. In North America, the trends are similar. In 2050, according to United Nations projections, it is possible that nearly as many babies will be born in the United States as in China. Indeed, the population of the world's current demographic colossus will be shrinking. And China is but one particularly sharp example of a widespread fall in birthrates that is occurring across most of the developing world, including much of Asia, Latin America, and the Middle East. The one glaring exception to this trend is sub-Saharan Africa, which by the end of this century may be home to one-third of the human race.

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The human habit is simply to project current trends into the future. Demographic realities are seldom kind to the predictions that result. The decision to have a child depends on innumerable personal considerations and larger, unaccountable societal factors that are in constant flux. Yet even knowing this, demographers themselves are often flummoxed. Projections of birthrates and population totals are often embarrassingly at odds with eventual reality.

In 1998, the UN's "best guess" for 2050 was that there would be 8.9 billion humans on the planet. Two years later, the figure was revised to 9.3 billion—in effect, adding two Brazils to the world. The number subsequently fell and rose again. Modest changes in birthrates can have bigger consequences over a couple of generations: The recent rise in U.S. and European birthrates is among the developments factored into the UN's latest "middle" projection that world population in 2050 will be just over 9.1 billion.



An unexpected baby boomlet in Europe has forced demographers to revise some projections.

In a society in which an average woman bears 2.1 children in her lifetime—what’s called “replacement-level” fertility—the population remains stable. When demographers make tiny adjustments to estimates of future fertility rates, population projections can fluctuate wildly. Plausible scenarios for the next 40 years show world population shrinking to eight billion or growing to 10.5 billion. A recent UN projection rather daringly assumes a decline of the global fertility rate to 2.02 by 2050, and eventually to 1.85, with total world population starting to decrease by the end of this century.

Despite their many uncertainties, demographic projections have become an essential tool. Governments, international agencies, and private corporations depend on them in planning strategy and making long-term investments. They seek to estimate such things as the

number of pensioners, the cost of health care, and the size of the labor force many years into the future. But the detailed statistical work of demographers tends to seep out to the general public in crude form, and sensationalist headlines soon become common wisdom.

Because of this bastardization of knowledge, three deeply misleading assumptions about demographic trends have become lodged in the public mind. The first is that mass migration into Europe, legal and illegal, combined with an eroding native population base, is transforming the ethnic, cultural, and religious identity of the continent. The second assumption, which is related to the first, is that Europe’s native population is in steady and serious decline from a falling birthrate, and that the aging population will place intolerable demands on governments to maintain public pension and health systems. The third is that population growth in the developing world will continue at a high rate. Allow-

ing for the uncertainty of all population projections, the most recent data indicate that all of these assumptions are highly questionable and that they are not a reliable basis for serious policy decisions.

In 2007, *The Times* of London reported that in the previous year Muhammad had edged out Thomas as the second most popular name for newborn boys in Britain, trailing only Jack. This development had been masked in the official statistics because the name's many variants—such as Mohammed, Mahmoud, and Muhamed—had all been counted separately. *The Times* compiled all the variants and established that 5,991 Muhammads of one spelling or another were born in 2006, trailing 6,928 Jacks, but ahead of 5,921 Thomases, 5,808 Joshuas, and 5,208 Oliveres. *The Times* went on to predict that Muhammad would soon take the top spot.

On the face of it, this seemed to bear out the thesis—something of a rallying cry among anti-immigration activists—that high birthrates among immigrant Muslims presage a fundamental shift in British demography. Similar developments in other European countries, where birthrates among native-born women have long fallen below replacement level, have provoked considerable anxiety about the future of Europe's traditionally Christian culture. Princeton professor emeritus Bernard Lewis, a leading authority on Islamic history, suggested in 2004 that the combination of low European birthrates and increasing Muslim immigration means that by this century's end, Europe will be “part of the Arabic west, of the Maghreb.” If non-Muslims then flee Europe, as Middle East specialist Daniel Pipes predicted in *The New York Sun*, “grand cathedrals will appear as vestiges of a prior civilization—at least until a Saudi-style regime transforms them into mosques or a Taliban-like regime blows them up.”

The reality, however, looks rather different from such dire scenarios. Upon closer inspection, it turns out that while Muhammad topped Thomas in 2006, it was something of a Pyrrhic victory: Fewer than two percent of Britain's male babies bore the prophet's name. One fact that

gets lost among distractions such as the *Times* story is that the birthrates of Muslim women in Europe—and around the world—have been falling significantly for some time. Data on birthrates among different religious groups in Europe are scarce, but they point in a clear direction. Between 1990 and 2005, for example, the fertility rate in the Netherlands for Moroccan-born women fell from 4.9 to 2.9, and for Turkish-born women from 3.2 to 1.9. In 1970, Turkish-born women in Germany had on average two children more than German-born women. By 1996, the difference had fallen to one child, and it has now dropped to half that number.

These sharp reductions in fertility among Muslim immigrants reflect important cultural shifts, which include universal female education, rising living standards, the inculcation of local mores, and widespread availability of contraception. Broadly speaking, birthrates among immigrants tend to rise or fall to the local statistical norm within two generations.

The decline of Muslim birthrates is a global phenomenon. Most analysts have focused on the remarkably high proportion of people under age 25 in the Arab countries, which has inspired some crude forecasts about what this implies for the future. Yet recent UN data suggest that Arab birthrates are falling fast, and that the number of births among women under the age of 20 is dropping even more sharply. Only two Arab countries still have high fertility rates: Yemen and the Palestinian territories.

In some Muslim countries—Tunisia, the United Arab Emirates, Bahrain, Kuwait, and Lebanon—fertility rates have already fallen to near-European levels. Algeria and Morocco, each with a fertility rate of 2.4, are both dropping fast toward such levels. Turkey is experiencing a similar trend.

Revisions made in the 2008 version of the UN's *World Population Prospects Report* make it clear that this decline is not simply a Middle Eastern phenomenon. The report suggests that in Indonesia, the country with the world's largest Muslim population, the fertility rate for the years 2010–15 will drop to 2.02, a shade below replacement level. The same UN assessment sees declines in Bangladesh (to 2.2) and Malaysia (2.35) in the same period. By

2050, even Pakistan is expected to reach a replacement-level fertility rate.

Iran is experiencing what may be one of the most dramatic demographic shifts in human history. Thirty years ago, after the shah had been driven into exile and the Islamic Republic was being established, the fertility rate was 6.5. By the turn of the century, it had dropped to 2.2. Today, at 1.7, it has collapsed to European levels. The implications are profound for the politics and power games of the Middle East and the Persian Gulf, putting into doubt Iran's dreams of being the regional superpower and altering the tense dynamics between the Sunni and Shiite wings of Islam. Equally important are the implications for the economic future of Iran, which by midcentury may have consumed all of its oil and will confront the challenge of organizing a society with few people of working age and many pensioners.

The falling fertility rates in large segments of the Islamic world have been matched by another significant shift: Across northern and western Europe, women have suddenly started having more babies. Germany's minister for the family, Ursula von der Leyen, announced in February that the country had recorded its second straight year of increased births. Sweden's fertility rate jumped eight percent in 2004 and stayed put. Both Britain and France now project that their populations will rise from the current 60 million each to more than 75 million by midcentury. Germany, despite its recent uptick in births, still seems likely to drop to 70 million or less by 2050 and lose its status as Europe's most populous country.

In Britain, the number of births rose in 2007 for the sixth year in a row. Britain's fertility rate has increased from 1.6 to 1.9 in just six years, with a striking contribution from women in their thirties

and forties—just the kind of hard-to-predict behavioral change that drives demographers wild. The fertility rate is at its highest level since 1980. The National Health Service has started an emergency recruitment drive to hire more midwives, tempting early retirees from the profession back to work with a bonus of up to \$6,000. In Scotland, where births have been increasing by five percent a year, Glasgow's *Herald* has reported “a mini baby boom.”

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Immigrant mothers account for part of the fertility increase throughout Europe, but only part. And, significantly, many of the immigrants are arrivals from elsewhere in Europe, especially the eastern European countries admitted to the European Union in recent years. Children born to eastern European immigrants accounted for a third of Scotland's “mini baby boom,” for example.

In 2007, France's national statistical authority announced that the country had overtaken Ireland to boast the highest birthrate in Europe. In France, the fertility rate has risen from 1.7 in 1993 to 2.1 in 2007, its highest level since before 1980, despite a steady fall in birthrates among women not born in France. France's National Institute of Demographic Studies reports that the immigrant population is responsible for only five percent of the rise in the birthrate.

A similar upturn is under way in the United States, where the fertility rate has climbed to its highest level since 1971, reaching 2.1 in 2006, according to the National Center for Health Statistics. New projections by the Pew Research Center suggest that if current trends continue, the population of the United States will rise from today's total

of some 300 million to 438 million in 2050. Eighty-two percent of that increase will be produced by new immigrants and their U.S.-born descendants.

By contrast, the downward population trends for southern and eastern Europe show little sign of reversal. Ukraine, for example, now has a population of 46 million; if maintained, its low fertility rate will

a country whose young male work force looks set to decrease by half.

The Russian future highlights in exaggerated fashion another challenge facing the European countries. Even absent Russia's dire conditions, the social and political implications of an aging population are plain and alarming. At a 2004 conference in

Paris, Heikki Oksanen of the European Commission's Directorate-General for Economic and Financial Affairs noted that the European social model of generous welfare states is facing a crisis because the number of retirees is rising while the number of working-age people is

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whittle its population down by nearly 50 percent by mid-century. The Czech Republic, Italy, and Poland face declines almost as drastic.

In Russia, the effects of declining fertility are amplified by a phenomenon so extreme that it has given rise to an ominous new term—hypermortality. As a result of the rampant spread of maladies such as HIV/AIDS and alcoholism and the deterioration of the Russian health care system, says a 2008 report by the UN Development Program, “mortality in Russia is 3–5 times higher for men and twice as high for women” than in other countries at a comparable stage of development. The report—which echoes earlier findings by demographers such as the Woodrow Wilson Center's Murray Feshbach—predicts that within little more than a decade the working-age population will be shrinking by up to one million people annually. Russia is suffering a demographic decline on a scale that is normally associated with the effects of a major war.

It is important to consider what this means for the future of the Russian economy. Identified by Goldman Sachs as one of the BRIC quartet (along with Brazil, India, and China) of key emerging markets, Russia has been the object of great hopes and considerable investments. But a very large question mark must be placed on the economic prospects of

declining. “People are aware that there is a problem, but they do not know how serious it is and [what] drastic reforms are necessary,” he said.

Oksanen went on to describe the dire implications for European tax systems. A pay-as-you-go pension scheme would take “only” 27 percent of wages if Europeans had replacement-level fertility, retired at age 60, and lived to 78. But if fertility decreased to 1.7 while longevity increased gradually to 83—close to where Europe is now—the tax would rise to 45 percent of the wage bill. Because of its low birthrate, Germany's problem is particularly acute. It currently has about four people of working age for every three dependents. Under one scenario for 2050, those four working-age Germans would be required to support five dependents.

But these sorts of projections don't capture the full picture. There are at least three mitigating factors to be considered, which suggest that the German welfare state and others in Europe might not have to be dismantled wholesale.

The first is that the traditional retirement age of 60 in Italy, France, and Germany is very early indeed, especially considering that life expectancy is approaching 80 and that modern diets and medicine

allow many elderly people to continue working well into their seventies. An increase of the retirement age to 65, which is being slowly introduced in France and Germany, would sharply reduce the number of non-workers who depend on the employed for support, as would more employment for people below the age of 20. A retirement age of 70 in Germany would virtually end the problem, at least until life expectancy rose as high as 90 years.

Second, the work force participation rate in Germany (and much of continental Europe) is relatively low. Not only do Germans retire on the early side, but the generous social welfare system allows others to withdraw from work earlier in life. An increase in employment would boost the revenues flowing into the social security system. For example, only 67 percent of women in Germany were in the work force in 2005, compared with 76 percent in Denmark and 78 percent in Switzerland. (The average rate for the 15 “core” EU states is 64 percent; for the United States, 70 percent.)

David Coleman, a demographer at Oxford University, has suggested that the EU’s work force could be increased by nearly a third if both sexes were to match Denmark’s participation rates. The EU itself has set a target participation rate of 70 percent for both sexes. Reaching this goal would significantly alleviate the fiscal challenge of maintaining Europe’s welfare system, which has been aptly described as “more of a labor-market challenge than a demographic crisis.”

The third mitigating factor is that the total dependency ratios of the 21st century are going to look remarkably similar to those of the 1960s. In the United States, the most onerous year for dependency was 1965, when there were 95 dependents for every 100 adults between the ages of 20 and 64. That occurred because “dependents” includes people both younger and older than working age. By 2002, there were only 49 dependents for every 100 working-age Americans. By 2025 there are projected to be 80, still well below the peak of 1965. The difference is that while most dependents in the 1960s were young, with their working and saving and contributing lives ahead of them, most of the dependents of 2009 are older, with more dependency still to come. But the

point is clear: There is nothing outlandish about having almost as many dependents as working adults.

Population growth on a scale comparable to that which frightened pundits and demographers a generation ago still exists in 30 of the world’s least developed countries. Each has a fertility rate of more than five. With a few exceptions— notably, Afghanistan and the Palestinian territories— those countries are located in sub-Saharan Africa. Depending on the future course of birthrates, sub-Saharan Africa’s current 800 million people are likely to become 1.7 billion by 2050 and three billion by the end of the century.

One striking implication of this growth is that there will be a great religious revolution, as Africa becomes the home of monotheism. By midcentury, sub-Saharan Africa is likely to be the demographic center of Islam, home to as many Muslims as Asia and to far more than inhabit the Middle East. The non-Arab Muslim countries of Africa—Niger, Mali, Burkina Faso, and Senegal—constitute the one region of the Islamic world where birthrates remain high. In several of these countries, the average woman will have upward of five children in her lifetime.

Christianity will also feel the effects of Africa’s growth. By 2025, there will be as many Christians in sub-Saharan Africa—some 640 million—as in South America. By 2050, it is almost certain that most of the world’s Christians will live in Africa. As Kenyan scholar John Mbiti writes, “The centers of the church’s universality [are] no longer in Geneva, Rome, Athens, Paris, London, New York, but Kinshasa, Buenos Aires, Addis Ababa, and Manila.”

But awareness of Africa’s religious revolution is usually overshadowed by the fearful possibilities raised by the continent’s rapid population growth. By 2050, the national populations are expected to more than double in the Democratic Republic of the Congo and Uganda, reaching 147 million and 91 million, respectively. Smaller countries—such as Liberia, Niger, Mali, Chad, and Burundi—are expected to experience growth of 100 to 200 percent. These are the countries with the weakest state institutions, the

least infrastructure, the feeblest economies, and thus the poorest health and education systems. They also face daunting problems of environmental degradation—and the lesson from Darfur and the Rwanda genocide is that disaster can follow when population growth strains local environments so badly that people cannot feed themselves.

The various demographic changes I have described arrived with remarkable speed. At the turn of this century, the conventional wisdom among demographers was that the population of Europe

**THE GLOBAL DEMOGRAPHIC
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was in precipitous decline, the Islamic world was in the grip of a population explosion, and Africa's population faced devastation by HIV/AIDS. Only a handful of scholars questioned the idea that the Chinese would outnumber all other groups for decades or even centuries to come. In fact, however, the latest UN projections suggest that China's population, now 1.3 billion, will increase slowly through 2030 but may then be reduced to half that number by the end of the century.

Because there are so many assumptions embedded in it, this forecast of the Chinese future could well be wrong. There is one area, however, in which demography relies on hard census data rather than assumptions about the future, and that is in mapping the youth cohort. All of the teenagers who will be alive in 2020 have already been born. So a strong indication of the eventual end of China's dominance of world population statistics is apparent in the fact that there are now 372 million Indians under the age of 15, but only 270 million Chinese. This gap will grow. India seems very likely to become the world's most populous country by 2030 or thereabouts, but only if nothing changes—China maintains its one-child policy and India does not

launch the kind of crash program of birth control that Prime Minister Indira Gandhi so controversially attempted in the 1970s.

There is another development that could affect future Indian and Chinese birthrates: the use of sonograms to ascertain the sex of a fetus. Wider availability of this technology has permitted an increase in gender-specific abortions. The official Chinese figures suggest that 118 boys are now being born in China for every 100 girls. As a result, millions of Chinese males may never find a mate with whom to raise a conventional family. The Chinese call such lonely males "bare branches." The social and political implications of having such a large population of unattached men are unclear, but they are not likely to be happy.

Gender imbalances are not limited to China. They are apparent in South Korea, Taiwan, Pakistan, Bangladesh, and increasingly in India, particularly among the Sikhs. Valerie

Hudson of Brigham Young University and Andrea den Boer of Britain's University of Kent at Canterbury calculate that there 90 million "missing" women in Asia, 40 million each in China and India, six million in Pakistan, and three million in Bangladesh.

In a recent paper Hudson and den Boer asked, "Will it matter to India and China that by the year 2020, 12 to 15 percent of their young adult males will not be able to 'settle down' because the girls that would have grown up to be their wives were disposed of by their societies instead?" They answered, "The rate of criminal behavior of unmarried men is many times higher than that of married men; marriage is a reliable predictor of a downturn in reckless, antisocial, illegal, and violent behavior by young adult males." Resulting cross-border "bridal raids," rising crime rates, and widespread prostitution may come to define what could be called the geopolitics of sexual frustration.

The state's response to crime and social unrest could prove to be a defining factor for China's political future. The U.S. Central Intelligence Agency asked Hudson to discuss her dramatic suggestion that "in 2020 it may seem to China that it would be

worth it to have a very bloody battle in which a lot of their young men could die in some glorious cause.” Other specialists are not as alarmed. Military observers point out that China is moving from a conscript army to a leaner, more professional force. And other scholars contend that China’s population is now aging so fast that the growing numbers of elderly people may well balance the surge of frustrated young males to produce a calmer and more peaceful nation.

China is also a key site of another striking demographic change: the rapid growth of the global middle class, perhaps the fastest-growing discrete segment of the world’s population. While the planet’s population is expected to grow by about one billion people by 2020, the global middle class will swell by as many as 1.8 billion, with a third of this number residing in China. The global economic recession will retard but not halt the expansion of the middle class—nobody expected growth without interruption.

The lower the birthrate, the greater the likelihood that a given society is developing—investing in education, accumulating disposable income and savings, and starting to consume at levels comparable to those of the middle classes in developed societies. Absent a shock factor such as war or famine, a society with a falling birthrate tends to be aspirational: Its members seek decent housing, education for their children, provision for health care and retirement and vacations, running water and flush toilets, electricity and appliances such as refrigerators and televisions and computers. As societies clamber up the prosperity chain, they also climb the mobility ladder, seeking bicycles, motor scooters, and eventually cars; they also climb the protein ladder, seeking better, more varied foods and more meat.

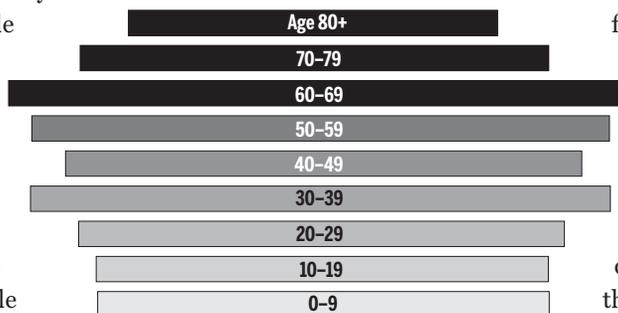
This pattern is apparent in China, India, and the Middle East. China’s new middle class, defined as those in households with incomes above about \$10,000 a year, is now estimated to number between 100 million and 150 million people. Some put the figure in India as high as 200 million. But it is apparent from the urban landscape across the developing world—whether in Mumbai or Shanghai, São Paulo or Moscow, Dubai or Istanbul—that a growing proportion of consumers seek to emulate a Western-international lifestyle, which includes an air-conditioned house with a car in the garage, a private garden, satellite TV, and Internet access, along with the chance to raise a limited number of children, all of whom will have the opportunity to go to college. Whether the biosphere can adapt to such increases in consumption remains a critical question.

Perhaps the most striking fact about the demographic transformation now unfolding is that it is going to make the world look a lot more like Europe. The world is aging in an unprecedented way. A milepost in this process came in 1998, when for the first time the number of people in the developed world over the age of 60 outnumbered those

below the age of 15. By 2047, the world as a whole will reach the same point.

The world’s median age is 28 today, and it is expected to reach 38 by the middle of the century. In the United States, the median age at that point will be a youngish 41, while it will be over 50 in Japan and 47 in Europe. The United States will be the only Western country to have been in the top 10 largest countries in terms of population size in both 1950 and 2050. Russia, Japan, Germany, Britain, and Italy were all demographic titans in the middle of the 20th century. Today, only Russia and Japan still (barely) make the top 10. They will not stay there long. The world has changed. There is more and faster change to come. ■

China’s Gray Future



By 2050, China’s over-60 population will vastly outweigh its youngest age groups, and the country could be on a course of rapid population decline.